(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 444 062 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
12.12.2012 Bulletin 2012/50

(43) Date of publication A2:
25.04.2012 Bulletin 2012/17

(21) Application number: **11168833.9**

(22) Date of filing: **06.06.2011**

(51) Int Cl.:
A61K 8/81 *(2006.01)* ***A61Q 1/02*** *(2006.01)*
A61Q 1/04 *(2006.01)* ***A61Q 1/06*** *(2006.01)*
A61Q 1/10 *(2006.01)* ***A61Q 3/02*** *(2006.01)*
A61Q 5/02 *(2006.01)* ***A61Q 15/00*** *(2006.01)*
A61Q 17/04 *(2006.01)* ***A61Q 19/00*** *(2006.01)*
A61Q 19/10 *(2006.01)* ***C08F 132/08*** *(2006.01)*

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME

(30) Priority: **08.06.2010 JP 2010130784**

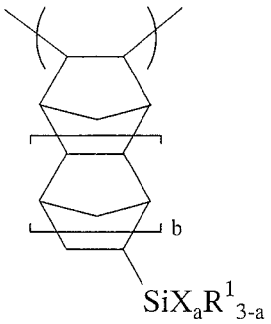
(71) Applicant: **Shin-Etsu Chemical Co., Ltd.**
Chiyoda-ku,
Tokyo (JP)

(72) Inventors:
- **Hayakawa, Chihiro**
  Tokyo, Gunma (JP)
- **Tetsuka, Hiroaki**
  Annaka-shi, Gunma (JP)
- **Yoneda, Yoshinori**
  Annaka-shi, Gunma (JP)
- **Hagiwara, Mamoru**
  Annaka-shi, Gunma (JP)

(74) Representative: **Stoner, Gerard Patrick et al**
Mewburn Ellis LLP
33 Gutter Lane
London
EC2V 8AS (GB)

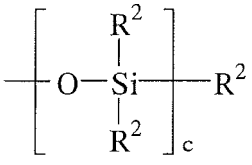
(54) **Cosmetic product containing film-forming polymer**

(57) Disclosed herein is a cosmetic product which contains a polymer having the repeating unit represented by the following formula (1) or (2):



(1)

wherein R^1 is independently alkyl group having 1 to 12 carbon atoms, X is a group represented by the following formula (i), a is an integer of 1 to 3, and b is an integer of 0 to 2,

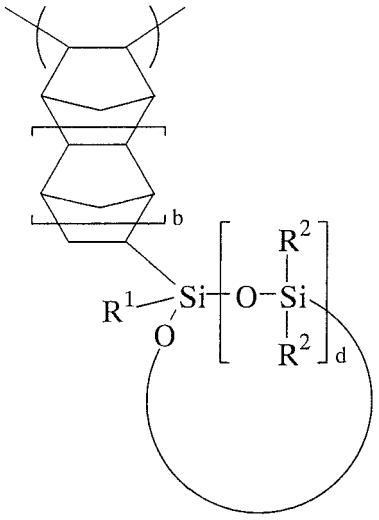


(i)

EP 2 444 062 A3

(Cont. next page)

wherein R^2 is independently alkyl group having 1 to 12 carbon atoms and c is an integer of 1 to 5,



(2)

wherein R^1, R^2, and b are defined as above, and d is an integer of 2 to 5.

Europäisches Patentamt
European Patent Office
Office européen des brevets

EUROPEAN SEARCH REPORT

Application Number
EP 11 16 8833

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	TETSUKA H ET AL: "Synthesis and properties of addition-type poly(norbornene)s with siloxane substituent", POLYMER JOURNAL, SOCIETY OF POLYMER SCIENCE, TOKYO, JP, vol. 41, no. 8, 1 January 2009 (2009-01-01), pages 643-649, XP009163984, ISSN: 0032-3896 * figure 1; table 1 * * page 646, line 45 - line 51 * * paragraph [copolymerisationofnorbornenes] *	1-3,7,8	INV. A61K8/81 A61Q1/02 A61Q1/04 A61Q1/06 A61Q1/10 A61Q3/02 A61Q5/02 A61Q15/00 A61Q17/04 A61Q19/00 A61Q19/10 C08F132/08
X	JP 2009 249610 A (SHINETSU CHEMICAL CO) 29 October 2009 (2009-10-29) * paragraphs [0014] - [0017], [0055] - [0058], [0063], [0047], [0062], [0069] * * page 1; examples 1-3; table 1 *	1-5,7,8	
X	JP 2009 173824 A (SHINETSU CHEMICAL CO) 6 August 2009 (2009-08-06) * paragraphs [0014], [0026] - [0028], [0070], [0054], [0059], [0060], [0081]; examples *	1-5,7,8	TECHNICAL FIELDS SEARCHED (IPC) A61K A61Q C08F
A,D	JP 2010 024154 A (SHINETSU CHEMICAL CO) 4 February 2010 (2010-02-04) * abstract *	1-9	
A	JP 2002 322042 A (POLA CHEM IND INC) 8 November 2002 (2002-11-08) * abstract *	1-9	

-/--

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	24 October 2012	Krattinger, B

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

Europäisches Patentamt
European Patent Office
Office européen des brevets

EUROPEAN SEARCH REPORT

Application Number
EP 11 16 8833

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X,P	JP 2011 084681 A (SHINETSU CHEMICAL CO) 28 April 2011 (2011-04-28) * the whole document *	1-5,7,8	
X,P	TETSUKA ET AL: "Addition-type poly(norbornene)s with siloxane substituents : synthesis, properties and nanoporous membrane", POLYMER JOURNAL, [Online] vol. 43, 20 October 2010 (2010-10-20), pages 97-100, XP002685840, * the whole document *	1-3,7,8	
X,P	US 2010/326121 A1 (ISHIDA JUNYA [JP] ET AL) 30 December 2010 (2010-12-30) * the whole document *	1-3,7,8	
X,P	EP 2 213 691 A1 (SHINETSU CHEMICAL CO [JP]; RIKEN [JP]) 4 August 2010 (2010-08-04) * paragraphs [0017], [0021], [0024], [0065], [0071], [0076], [0080] *	1-3,5-8	TECHNICAL FIELDS SEARCHED (IPC)
E	EP 2 412 732 A1 (SHINETSU CHEMICAL CO [JP]) 1 February 2012 (2012-02-01) * the whole document *	1-5,7,8	

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	24 October 2012	Krattinger, B

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 11 16 8833

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

24-10-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2009249610 A	29-10-2009	JP 2009249610 A	29-10-2009
		TW 200951148 A	16-12-2009
JP 2009173824 A	06-08-2009	JP 4645858 B2	09-03-2011
		JP 2009173824 A	06-08-2009
JP 2010024154 A	04-02-2010	JP 4993508 B2	08-08-2012
		JP 2010024154 A	04-02-2010
JP 2002322042 A	08-11-2002	NONE	
JP 2011084681 A	28-04-2011	NONE	
US 2010326121 A1	30-12-2010	CN 101935432 A	05-01-2011
		DE 102010025394 A1	04-08-2011
		JP 2011012114 A	20-01-2011
		US 2010326121 A1	30-12-2010
EP 2213691 A1	04-08-2010	EP 2213691 A1	04-08-2010
		JP 2010174099 A	12-08-2010
		KR 20100087643 A	05-08-2010
		US 2010190950 A1	29-07-2010
EP 2412732 A1	01-02-2012	CN 102516433 A	27-06-2012
		EP 2412732 A1	01-02-2012
		JP 2012031305 A	16-02-2012
		US 2012029158 A1	02-02-2012

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82